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GENESEE FARMER.

SATURDAY, DECEMBER 9. 1837.

Fattening Cattle.

The best and cheapest mode of fattening cattle is a matter of considerable consequence to the farmer, as there can be no doubt, that while by some processes a profit is the result, by others a loss is as certainly incurred. A late number of the British Farmers' Magazine contains the history of an experiment made by the celebrated agriculturist, Mr. Brodie, to determine the expense of feeding cattle, and the relative value of different articles for this purpose. Although the article in all its details would not be perfectly applicable to the state of farming in this country, yet a condensed account of the experiment, so far as the food was concerned, cannot be otherwise than useful.

For the experiment, Mr. Brodie purchased at Falkirk 20 head of cattle on the 12th of October, 1836—divided them into four divisions of five each—put each into separate yards, with ample space, and good covering sheds, and gave the same attendance, all that was necessary, to each. Each lot after purchase was fed ten days on turneps and straw, before the arrangements could be made for the regular commencement of feeding. They were fed to the 7th of June, 1837, and then slaughtered. The first lot was fed on turneps alone, and independently of the ten days' feed, consumed as follows:

TURNEPS ALONE. *Expense of lot No.* 1.	£	s.	d.
Expense of five cattle,	£55	0	0
Thirty-four tons of white globe turneps, at 8s. 4d. per ton, consumed at the rate of 10 cwt. a day,	14	3	4
Sixty tons 5 cwt. ruta baga, at 12s. 6d. per ton, consumed at the rate of 8 cwt. a day,	37	13	2
Ten days' feed on straw and turneps,		6	8
	£107	3	2

The average weekly expense of this lot is 6s. 2d. per week for each beast.

TURNEPS AND OIL CAKE. *Expense of lot No.* 2.	£	s.	d.
Expense of five cattle,	£55	0	0
Ten days' feed on straw and turneps,		6	8
Seventeen tons white globe turneps, at 8s. 4d.,	7	1	8
Thirty tons 2 cwt. of ruta baga, at 12s. 6d.,	18	16	7
Two tons 14 cwt. 38 lbs. linseed cake, at £8 per ton,	21	5	2
	£102	10	1

Expense of this lot per week each beast is 6s. 8d.

TURNEPS & GROUND CORN. *Expense of lot No.* 3.	£	s.	d.
Expense of five cattle,	£55	0	0
Ten days' feed on straw and turneps,		6	8
Seventeen tons white globe turneps, at 8s. 4d.,	7	1	8
Thirty tons 2 cwt. of ruta baga, at 12s. 6d.,	18	16	7
117 bushels ground beans, 62 lbs. to the bushel, at 5s.,	29	5	0
Nine bushels bruised oats, at 3s. 6d.,	1	11	6
	£112	1	5

Expense of this lot per beast per week is 6s. 7d.

DISTILLERY GRAINS & GROUND BEANS. *Exp. of lot No.* 4.	£	s.	d.
Price of five cattle,	£55	0	0
Ten days' feed on turneps and straw,		6	8
Five tons 5 cwt. globe turneps, at 8s. 4d.,	1	7	1
Distillery draff,	35	12	9
Ninety-eight bushels ground beans, at 62 lbs. per bushel, at 5s.,	24	10	0
	£116	16	6

Average expense per beast per week of this lot is 7s. 2d.

The globe turneps were fed between October 24th, and January 1st, and the ruta baga afterwards, in all cases.

The live weight of each lot when driven to market was as follows:

Lot No. 1, fed on turneps alone,	536	stones.
No. 2, half turneps and oil cake,	552	"
No. 3, half turneps and ground corn,	517	"
No. 4, distillery grain and ground corn,	545	"

The following was the weight of each lot after slaughter:—

	BEEF. *Stones.*	*lbs.*	TALLOW. *lbs.*	HIDES. *lbs.*
No. 1,	283	3	514	391
No. 2,	295	10	580	412
No. 3,	280	7	520	377
No. 4,	280	0	515	357

On the 7th of April, judges appointed by the committee of management examined each lot, and reported their respective values as follows:

No. 1, £82–No. 2, £88 10s.–No. 3, £77–No. 4, £81 10s.

The increase in weight was at first much the greatest in lot No. 1, as their tastes were not affected by a change of feed so much as the others; but Mr. B. observes that the experiment on the whole was decisive in favor of feeding half turneps and oil cake, as in lot No. 2; as if lot No. 1 had been only allowed half the turneps they consumed, and had got oil cakes in lieu of the other half, the expense of their keeping would have been lessened about £4 13s. and from superior quality, their value would have been increased £10, making about £14 difference in the lot. The turnep lot had a decided preference, however, over both the 3d and 4th lots, in the cost of keeping and value when slaughtered.

The result at which Mr. Brodie arrives is this: that turneps, as an auxiliary to oil cake, is the best mode of feeding; but that turneps alone are more profitable than feeding with grain and turneps, or grain alone. This result we have reason to believe is correct. We have known some individuals ruined by feeding cattle for market on meal alone; and are sure that, at present prices, whoever undertakes it will find it a losing business. By feeding one half turneps the scales would be turned, and a handsome profit the result. Such experiments show the value of roots, and should not be lost upon those who are interested in obtaining the greatest profit from the smallest quantity of land.

Vegetable Physiology.

This subject, so important to the agriculturist, is receiving the attention it deserves from men of science in all parts of the world; and it is to be hoped, that the laws which govern the circulation of the sap in trees and plants, and consequently their methods of nutrition, and the best means of advancing it, will ere long be fully developed and understood. At the late meeting of the British Association at Liverpool, Mr. Nevan detailed a series of experiments before the section of Zoology and Botany, which seem to throw some light on this subject, and may be made of practical utility. The experiments were performed on elm trees forty years of age, in February, 1836.

"In experiment first, the stem of the tree was denuded, in a circle, of its cortical integument, or bark, leaving the alburnum or wood beneath, uninjured. On the May following the denuded or stripped part was filled up by the exudation of bark and wood from the upper surface of the wound, and the tree had not suffered in growth.*

In experiment second, the bark and cambium, or layer next to the bark, were removed in the same manner. In August, 1837, this elm sickened, and there was no formation of wood or bark in the wounded part. Two developments, however, took place, one above the other from below, the former having the appearance of roots, the latter were branches with leaves.†

In experiment third, the bark and two layers of alburnum, or wood, were cut away. The tree was at the time unhealthy; it however put forth its leaves on that and the ensuing spring, but shortly after died. No sap was observed above and below the wounded part. Roots were developed from the upper, and branches from the lower part of the section.

In experiment fourth, the bark and six layers of alburnum were taken off. The tree became much less vigorous, but did not die, and otherwise presented the same appearance as the last.

In experiment fifth, the bark and twelve layers of alburnum were cut away. The consequences were similar to the last two; the wood above and below the cut being dry, but an accidental cut that penetrated the heart wood showed sap.

Experiment sixth was a repetition of that of De Beauvais, by cutting away the circular ring of bark around a single branch. The branch continued to grow, and roots sprouted from the under surface of the isolated bark and branch.‡

In experiment seventh, the whole of the wood of the tree was cut away, except four pillars composed of bark and sap wood. In this case the sap first appeared from above, descending by the pith, and then from the heart wood, the alburnum being dry. In this instance the sap must have passed up the alburnum or sap wood, and horizontally through to the heart wood.

Mr. Nevan inferred from his experiments—1. That the life of the tree does not depend on the bark or cambium. 2. That the descent of the bark takes place before the development of the leaves. 3. That new matter arises from below, which had not previously been allowed. He thought there were two distinct principles in the tree,—one ascending, or leaf principle; the other the descending, or root principle. Mr. Nevan had performed some experiments on the conversion of roots into branches, and came to the conclusion that buds or branches might be developed from any part of the root above the extreme end, from which point it was impossible for buds to be developed.—*London Atheneum, Sept.* 1837."

NOTES BY THE EDITOR OF THE FARMER.

* A number of years since we saw several apple trees that had become unhealthy in consequence of being encrusted with the insect called apple tree louse, and the bark perforated with their sharp beak, stripped carefully of their bark in the spring of the year, at what time we do not now remember, and a new smooth bark took its place the same season, to the manifest benefit of the tree. As the cambium or layer of new wood is formed by the elaborated and descending sap, may not this layer be converted into bark by the action of the atmosphere while forming, and continue to perform the functions usually assigned to the liber or bark of the tree.

† The fact here stated of the developments of branches from the under, and roots from the upper side of the wound, is familiar to every woodsman of this country. The trees where it can be observed most favorably in our forests, are the beach and the elm; the former in trees of middle size that are healthy and vigorous, and the latter those that are young, say from ten to twenty, and of rapid growth. Nothing is more common than to see stumps of these trees completely circled with a thrifty growth of sprouts springing from the cambium or between the wood and the bark; and if the tree is only partially cut down, and left standing, roots most invariably protrude from the upper part of the cut, directly opposite to the sprouts. The appearance of these shoots from above and below, when first distinctly visible, so much resemble the granulations formed in healing wounds on man or animals, that it is impossible to resist the conclusion that they arise from the same cause, and are the result of an effort of nature to restore the circulation which has been interrupted, by the deposition of new matter, till the union of parts shall be complete.

‡ This experiment is not an uncommon one, as it is often performed for the purpose of forcing fruit on trees that blossom abundantly, but bear little mature fruit. A ring of from a quarter to half an inch taken from the branch will sometimes cause a plenty of good fruit on that part of the tree, while the remainder is barren. The reason is supposed to be, the juices ascending by the alburnum, are elaborated in the leaves, and descend for the formation of new wood. By interrupting this communication, the elaborated sap is retained mostly in the branch,

and instead of passing into the formation of new wood, goes to the perfection and support of the fruit.

From the Farmer and Gardener.

CORN FODDER, &c.

Mr. Roberts—The result of a number of trials to ascertain the comparative value of the refuse of corn, say the *stalk*, *blade*, *shock* and *cob* together, and each singly, has *compelled* me to come to this conclusion, that there is no kind of ruffage, if the last is properly managed, say as any farmer can readily manage it, all things considered, that is more valuable than the refuse of corn. I do know, sir, from actual *trial*, that if the *shuck* is judiciously saved and *steamed*, half the quantity of corn will suffice for a horse, during the ploughing season, if it is properly given with the shuck, and the animal will sustain his labor better. I do also know, from an equally fairly conducted *experiment*, that from the refuse of corn, say the *stalks* alone, properly saved and cut, and well steamed—the *cobs* ground, the *meal* dissolved in water, and suffered to arrive at the vinous fermentation, the cut stuff well saturated with the liquid, that I can keep an ox, or cow, in a better state of flesh, and health, than the best hay can possibly do—but, sir, my cow or ox would eat her food in a warm house, if the weather was cold and wet, and not *shivering on a bleak hill side*. I have often actually, sir, thought to myself, while riding past an *old cornstalk field*, in a bleak, and cold, and rainy storm, and seeing a fine milch cow, or a faithful, laboring ox, *drawn up* with icicles hanging to his body, that it was a most *conclusive proof* of the "*fall of Adam*," and the doctrine of "*original sin!*"

If there is a fact in agricultural pursuit perfectly settled, it is that *mixed food* is more *salutary*, and more *nutritious* in its operation, than *unmixed*, and cooked and mixed *superior* to either, and in a judicious mixture of articles of diet for animals, and the state in which it is given, consists the great secret of feeding animals to advantage. But to return—The price of *provisions* throughout the United States makes it evident, that it is the interest of the farmer to raise all the *beef* he can, for market—*butter* and *cheese*—consequently, if he can employ any of the *ruffage* of his plantation in this way, it is his *interest*, not only to do it, but to do it with all the well-timed economy he is master of. In the south, we find lately that no part of the farmer's business is more profitable. This point being then settled, it becomes the primary interest of the farmer or planter, to raise all the stock he possibly can, because the possession of them is the great key to the accumulation of manure, and without which he is in a great measure cut off from the great *resource* for securing *heavy* and *profitable* crops—and a farther, and still more serious consequence follows—his *land*, his *capital*, his *all*, is annually *deteriorating—wearing out*, an object among the most *readily*, and *certainly* gained, by ignorance and folly. If the foregoing positions are correct, it is required merely to show, how any kind of ruffage can be prepared to become nutritious, and the consequence follows, that it is the farmer's *interest*, his best interest, to preserve it, and employ it in the rearing of stock. It may not be amiss here to state the actual value of the *manuring system*, as it will go to show the sound policy of the whole proceeding I am advocating, although it is known, and would be recollected by many gentlemen, yet I wish to present it *now* by a brief statement, that it may be *kept in view* throughout this investigation. The manuring of *one acre* of land *well*, and a *judicious* tending so as to *save that manure*, is an *insurance* for *four good crops*. This I know from a fair and full trial, and that by a judicious *rotation*, at the end of the *fourth* the land is in better heart than at the start. Without this *manuring*, every crop takes from the soil, and the latter deteriorating, leaves it at the end of the *fourth* almost *reduced*, so that a farther crop would not give a remuneration for making it. Now, sir, this last statement, which cannot be denied, is a wretched result, especially when it is recollected that you have not only *no security* for a *full* or *heavy crop* at first, and every succeeding crop getting worse afterwards. Wretched is the *interest* on capital employed, no matter what it may be, if that *capital* is annually *deteriorating*. And fully as wretched is the agricultural practice, no matter what the crops are, if the *land is annually* wearing out. Place the thing in any attitude you please, the last dreary result not only carries with it a full confutation of the course, but equally forces the conclusion, that it must be radically erroneous. Inquirer.

CIDER.

Many persons, perhaps are not aware of the efficacy of black mustard seed, (*Sinapsis nigra*,) in preventing the acetic fermentation of cider. About a half pint of the seed, put into a barrel of cider, will preserve it as sweet, from the usual time of making cider in autumn, till the following May, as the day it was put in. The mustard is of very easy culture; a few seeds scattered in some rich vacant spot, will ensure a successive crop—although the plant is an annual. The succeeding crops will be perpetuated by the seed which fall to the ground in autumn. But in order to secure the cider from any unpleasant flavor, it is highly important that the vessels be perfectly free from must. An effectual method of cleansing cider barrels is, by putting into each one about a quart of unslacked lime, after which, pour on about four or five gallons of boiling water. Cover the bung hole with a loose covering, that some of the steam may escape, which will be generated in great quantities, to prevent the barrel from bursting. Shake it up several times and then rinse it with clean water. It will add also greatly to the quality of the cider, by being separated entirely from all the sediments. This may be done by filtering it through a hair sieve when running from the press, and then rack it off when it has stood a sufficient length of time, to let any that might remain, settle to the bottom.—*Farmer's Cabinet.*

From the Farmer's Magazine.

ON MANURE FOR WHEAT.

We can strongly recommend the following paper, on the choice of manure, to the notice of our readers. It is from an able work on the varieties, properties, and classification of wheat, by Colonel Le Couteur:

"The effect of different manures on wheat is very remarkable; it will not be necessary to say much on the subject, as it is almost exhausted, having been fully treated by far more able pens, but having made some experiments on the subject, I may be excused from publishing their results.

"I confine my observation to those manures which are within the reach of most farmers, with one or two exceptions.

"Stable manure will, in ordinary good soils, have the effect of causing the plants to tiller much, or to make straw and grass, thereby diminishing the produce in grain and meal considerably.

"Liquid manure, one third stable drainings, and two-thirds water, which I caused to be poured once over wheat that was just tillering, made the straw grow rank and coarse, the grain of every variety of wheat was dark and thick-skinned, hence containing less meal. The same quantity and mixture of liquid manure poured a second time over another portion of wheat, caused it to grow so rank and full of leaves, rather than straw, that only a few of the plants produced ears of wheat, some having run up into sharp points, with merely the rudiments of ears indicated. The few ears that produced corn, displayed in its worst form, hardly in the shape of meal, or a doughy soft texture, evidently unfit for the food of man; besides, some of them were smutty. Thus, an over application of manure, excellent when judiciously applied, becomes a poison precisely in the same manner as in the human constitution, a surfeit is usually the parent of some disease.

"The wheat on either side of these experiments, which had only been manured with the ashes of kelp, or sea-weed, was healthy, productive, and farinaceous in the highest degree.

"My attention was particularly called to the proper application of manures by an old and experienced farmer, who considered kelp, or the ashes of rock sea weed, that which is cut, the best of all. I am convinced, by subsequent experience, that two or three pounds worth of it per acre, spread at the proper period, about two months before sowing time, would always more than repay itself.

"It attracts moisture from the atmosphere, it materially increases the volume of the grain, and fineness of the sample; but does not add to the weight of the straw, though rendering it whiter and more nourishing to cattle. It causes the wheat to assume a rich healthy appearance, and is an excellent application after a crop of potatoes or parsneps, both of which require land to be richly dressed with stable or other strong manures, and has not the effect of decomposing them, as lime does.

"It is also destructive to insects and their eggs, which lie in the soil or turf; it forces the earth-worms and wire worms from their lurking places to come to the surface and die; particularly when laid on in a larger quantity than I have named, some farmers being in the habit of putting on double, even treble the quantity above stated—but I believe without having produced proportionably larger crops from inferior land; though it has been asserted that its effect is very permanent, being especially apparent on the succeeding clover crops.

"I am inclined to believe that paring and burning an old ley will almost produce an equally good effect where the land is suited for it; for although the ashes may not be of that superior quality, or possessing all those virtues peculiar to kelp ashes, and the much greater portion of ashes that can by this means be spread on the land may make amends in quantity for quality.

"An additional circumstance in favor of paring and burning is, that all the seeds or weeds, or the eggs and insects which lie concealed in the turf, are thereby destroyed more effectually than by any repeated ploughings.

"The careful experience of five years on this head has convinced me of the propriety of this practice occasionally, especially on ground infested with couch or knot-grass. From three acres of land that had been pared and burned, which produced five hundred and forty single horse loads of ashes, I obtained a very heavy crop of turneps; the following year I raised ninety-one thousand pounds of potatoes, and by an application of about forty-five bushels of lime per acre, I have since reaped fifty-one imperial bushels of wheat per acre; the straw also was of very fine growth, five feet high, and exceedingly white and bright.

"Kelp ashes should lay on the surface of the soil a month or two previous to sowing time, in order to weaken their caustic power, or they are otherwise apt to burn the young and tender shoots of the corn, as well as the larvæ of insects; but by laying a certain length of time on the surface exposed to the action of the atmosphere, or perhaps, what would be better practice, merely lightly turned into the soil, they become eminently beneficial.

"I am so partial to the use of ashes, that I should recommend those who have large woods or forests, to employ women and children to collect the dry and broken boughs and under shrubs to be burned for the sake of the ashes, which would be found nearly equal to those of the sea-weed, and could thus be procured at a much cheaper rate; besides gaining the advantage of converting what is now wasted, or neglected, into a most valuable and permanent manure, perfectly free from weeds, and destructive to insects and worms.

"Ashes are further beneficial, inasmuch as they attract the moisture from fogs and dews, and retain it a considerable length of time.

"Lime is so well understood as a manure for wheat, that it would be a mere waste of time to say more on the subject than as far as my own experience goes; it appears to impart a greater degree of whiteness to the straw than any other manure. Its other excellent qualities of absorbing moisture from the atmosphere in dry weather on light or gravelly soils, and increasing the weight of the grain, are well understood; it is to be lamented that some general rule for its application is not made known, as, in the best books I have consulted on the subject, it varies in the extraordinary proportion from fifty-six to five hundred bushels per acre, which last appears to me to be an absurd quantity.

"I have found it to answer perfectly at the rate of forty or fifty bushels an acre on a good loam, and I should apprehend that double that quantity ought to be sufficient for the poorest land, unless it be to destroy moss, when a still larger top dressing is required, which, if well harrowed in, does it effectually. This commixture of turf and lime, if soon after ploughed in, in turn, becomes itself a manure for the very soil the turf previously rendered barren.

"Soot is said to be an excellent top-dressing. I have tried it but once, without having perceived the advantageous results that are said to be derivable from it; it is only in the environs of towns or villages that it can be obtained in sufficient quantity to be available to a large farmer."

Cutting Bushes on Bogs.

It is undoubtedly the best time to kill bushes to cut them in the height of their growth in August, or perhaps earlier; but a very convenient time to cut them upon bogs and low places is when the ground is frozen over, without snow upon it. The surface then bearing the person who chops, he can work with more comfort and ease, than where it is soft and wet.—*Maine Far.*

Size of Farms.

We know not when or where the following article on the size of farms was first published. We commend it to the attention of our readers, as affording some useful hints on a subject of interest.—*Farmer's Cabinet.*

An obstacle in the way of good husbandry in the west is the size of the farms. Very generally they are too large. The cheapness of land offers an inducement to the farmer to procure a large tract. And the fashion being set, he who has not three, four, five or six hundred acres of land, is not considered a farmer on a respectable scale. This thing, I have no doubt operates detrimentally to the general interests of agriculture, and to the individual disadvantage of the proprietors. If a man possesses the means of purchasing a farm of five hundred, or even five thousand acres, and then, of suitable improving, stocking, and cultivating it, it might operate well enough as regards himself. But it too generally happens that the farmer settling among us, purchases land to the full extent of his means. Then, if improved, his improvements progress very slowly, and will be at least imperfect, if not very inferior. His grounds partially cleared, his enclosures insecure, his barns and stables (if perchance he has any) mere temporary sheds, and his own dwelling, a poor, contracted, uncomfortable cabin, and all this for the sake of having a large farm. But the mischief ends not here; it is perhaps still more injuriously manifest in the cultivation. A large farm requires large fields and crops. Accordingly you see a field set apart for corn, of the contents of one hundred acres. But the deficiency of means will not admit of thoroughly breaking with the plough, perhaps not at all, and the poor substitute of furrowing out, as some call it, is resorted to. The after culture of the crop is in keeping with the commencement, and nature would not be true to herself, if she did not give such a harvest as such culture deserves. What there is lies neglected in the field, or unhoused at some other point, until unruly animals, allured by bad fences, claim a large *tithe* of the product, or till the storms of winter destroy a large portion of the summer's labor. Now suppose this whole business put upon a smaller scale, and graduated by the means of the preprietor: suppose the quantity of ground tilled is twenty, instead of one hundred acres. This well broke, and ploughed and hoed, and weeded in after culture, timely gathered and well secured, the profit would probably have been a hundred per cent. better.

Besides all this, it is only where farming is carried on on a smaller scale, generally, that you witness that universal neatness and taste and finish which throw around the whole scene a sort of rural enchantment, which attracts and impresses every beholder. And the thing is most easily accounted for. The whole is under the farmer's own eye, and wrought chiefly, if not exclusively, by his own hands and those of his healthy sons. He seeks not to be proprietor of an agricultural *empire*, in extent, but to create an agricultural paradise of concentrated attractions and beauties.

It is to the small farms in every country that you are to look generally for the best models, the finest taste, the most pleasure, and the largest profits upon the investment.

I am confident that fifty acres, cultivated in the very best style of modern improvements, would yield more in profit than many of your five hundred acre farms now yield.

It is an excellent rule, never to take in hand more ground than you can cultivate in the best manner; for be assured that if you calculate to make up the defects of culture by increasing the quantity of ground thus defectively cultivated, you will find yourself greatly in error.

Great Crops of Ruta Baga.

We have often made the assertion, that in no way could so much food for stock be obtained from a single acre of land, as by the cultivation of roots; such as Ruta Baga, Mangel Wurtzel, Sugar Beet, &c. We think ourselves very well paid for our labor if we obtain a ton of hay from that amount of land—better paid if we get two tons—and have done uncommonly great things should we get three. But by cultivating roots properly, we can increase the amount of cattle food in a ten-fold ratio.

Mr. Nathan Foster, of Winthrop, informed us the other day, that he gathered from a single quarter of an acre, TWO HUNDRED AND FORTY-FIVE bushels of Ruta Baga. This crop was taken from land that had been cultivated with this crop for several successive years. This is 980 bushels per acre, and allowing 64 lbs. to the bushel, it makes more than THIRTY-FOUR AND A HALF TONS to the acre. Now we are aware that there are various opinions in regard to the nutritive powers of Ruta Baga, but from our own limited experience, and from the more extensive experience of others, we do know that a ton of Ruta Baga and a ton of hay is better for cows and young stock than two tons of hay alone will be.

GREATER CROP YET.—Since writing the above, we have been informed by Mr. Isaac Bowles, of Winthrop, that he has actually raised and gathered this season *eleven hundred and twenty bushels* of Ruta Baga from one acre of land.

Now this crop, allowing 64 lbs. to the bushel, will make more than *thirty-five tons and a quarter* the acre. Mr. Bowles planted them on land which had been highly manured a year or two ago, and on which he raised his great crop of corn. His mode of planting them was as follows: He took a light piece of wood of suitable size and length, and bored holes in it twenty inches apart. Into each hole he put a pole and fastened it in. On the end of each he tied a brick bat. Two men dragged this instrument, back and forth, and thus made furrows or drills; while himself and a young hand followed after and scattered in the seed. He then passed a heavy roller over it, and the work was done.—*Maine Far.*

Hogs and Manure.

MR. COOKE—If you think the following worthy, you may trouble your readers with its appearance in your paper.

I think that branch of the "farmer's work" which embraces the fattening of pork, and making manure therefrom, is not enough attended to by farmers in general. If properly managed, it will afford the greatest profit from the same expense and labor.

My plan is this—yard the hogs through the year. Give each hog to work upon, ten loads of mud from the swamp. Give them potatoes, apples and waste food from the house enough to keep them in good thriving order, *all the time*, till about September. Then attend them regularly, giving them all they will eat, perhaps some extra food, for about four months.

In this way the expense will be about 20 or $25 per hog, for the whole time of growing and fattening.

Some men, thinking to avoid expense in keeping, permit their hogs "to run at large," or in a large pasture. This is a bad practice: the hogs "run away" so much of their flesh, that it requires nearly as much to keep them in a thriving state, as if they were yarded. If it did not, the pasture would be much more profitable for other stock. More than this, the hogs will convert about four loads more of mud into good manure, which will more than twice pay the extra cost of yarding.

THE RESULT—COST.

Cost of growing and fattening each hog,	$25 00
Cost of hauling mud to the yard, ten loads,	1 00
	$26 00

PROFIT.

There will be eleven loads of first rate manure, (the hog making one at the lowest calculation,) which if applied to benefit a corn crop, and the soil, will at least be worth $2,25 per load. This may seem a high estimate, but every experienced farmer must admit it.

Which will amount to	$24 75
Which sum deducted, leaves *cost*,	$1 25

The hog, if he has done well, will weigh 4 cwt. which at the present prices of pork, is worth 10 cts. per lb., $40 00

Who can make $1 25 net him $40 00 in any other branch of agriculture?—*Am. Silk Grower.*

From the [London] Farmer's Magazine, received at the office of the Genesee Farmer.

The use of Crushed Bones as Manure.

Mr. C. W. Johnson, in a pamphlet recently published, has shown that this subject is highly deserving the serious attention of farmers in this great agricultural county. The author says:

"In the experiments hitherto made, light dry soils are most benefited by bone manure; such as dry sands, limestone, chalk, light loams, and peat. It is true that some experiments have shown an excellent result from their application to even wet, heavy soils, but this happened chiefly in the dry seasons of 1826 and 1827. Those who theoretically recommend crushed bones for such soils, because they will render them more friable, forget the small quantity in which they are employed.

"A farmer, however, near Nantwitch, relates, that on a clay loam scarcely twelve inches deep, on a sub soil of gray sand mixed with clay, he finds that bone manure causes a good herbage of white clover and treefoil to grow where only sour grass grew before.

"From the result of the inquiries of the Doncaster Agricultural Association, it appears to be the opinion of those who had employed crushed bones, that they are superior to the best stable manure—in respect to the quality of the corn, as 7 to 5; quantity, 5 to 4; and durability of effect, 3 to 2."

The turnep crop appears to be the most benefited by the application of bones, and numerous experiments are given, demonstrating their great value for this purpose.

"In the year 1831, on a thin chalky soil, in the neighborhod of Amesbury, in Whitshire, Mr. Devenish employed bone manure of the quality called "fine," drilled at the rate of 24 bushels per acre, with the turnep seed, on a portion of a field about ten acres. Part of the same field was manured with spit dung, at the rate of about 20 tons per acre, and another portion of the same field remained without any manure. The Swedish turneps produced on the boned soil, were of four times the value of those grown upon the land manured with spit manure. Those grown on the soil without any manure, were deemed scarcely worth hoeing."

The large and increasing consumption of bones by farmers of the North of England and Scotland, has rendered it necessary to import them from all parts of Europe, and even from Buenos Ayres and North America. This novel trade has been steadily increasing for the last fifteen years. In 1821 the declared value of the foreign bones imported for agricultural purposes amounted to £15,898 12s. 11d.; in 1828 it had increased to £59,782 9s. 11d.; and in 1835, to £127,131 14s. 10d.

The author gives in conclusion the following practical general directions:

"The crushed bones have been invariably found more immediately beneficial as a fertilizer, when suffered to remain previously for some weeks, mixed with earth in heaps, exposed to the action of the atmosphere. By being thus fermented and dissolved, they are necessarily more speedily serviceable as food to the plants to which they are applied; and this observation more especially relates to the oat, barley, and other spring corn, since these do not remain on the ground for so long a period as other agricultural crops. The proportion is 50 bushels of bones, with five loads of earth or clay; or 40 bushels to five loads of common dung. For wheat and pasture lands the previous fermentation of the bones is, for this reason, not so essential to the production of immediate relief. It is impossible to give any general directions for the quantity of bones to be applied per acre, since soil, situation, and climate, must all be taken into the farmer's consideration. The following facts, however, have been ascertained by numerous experiments, at some of which I have personally attended:—

"That crushed bones remain in the soil for a length of time proportionate to the size of the pieces; the dust producing the most immediate effect, the largest pieces continuing to show the longest advantage. On arable land their good effects continue for four years; on pasture land for eight.

"On turneps, oats, barley, and wheat, the quantity applied has been from 25 to 30 bushels per acre; on pasture land, from 25 to 40 bushels of bone dust, early in the spring.

"The best mode of application is by the drill, with the seed corn.

"The bones should, when first used, be always applied, for the sake of correct information, in varying quantities per acre; and on no account should the farmer omit to leave, by way of comparison, a fair portion of the field without any manure."

Cure for the Wounds of Cattle.

The most aggravated wounds of domestic animals are easily cured with a portion of the yolk of eggs mixed in the spirit of turpentine of Florence.

The part affected must be bathed several times with the mixture each day, when a perfect cure will be effected in forty-eight hours.

COMMUNICATIONS.

A Day in Butternuts.

Mr. Editor—A day spent in the pleasant Valley of the Butternuts, in August last, in seeing what it presents most worthy of attention, especially in an agricultural point of view, gave me so much pleasure that I am tempted to enclose you some memoranda of the excursion.

In the first place, let me caution the inexperienced traveller who journeys in quest of Louisville, Gilbertsville, or any other of the villages on the Butternuts Creek, to make his *entree* at one extremity of the Valley or the other—for the lateral approach is over hills so high, and by roads so rough, that I, who was tempted to try it to save a mile or two, lost at least ten. So long was I detained in surmounting these rocky barriers, that although my day's ride had not been a long one, lights were glimmering from the windows of Louisville as I drove up to the door of Mr. R. It was arranged between my host and me that we should take the field early in the morning, 'to make the most of our time'—and that we should devote our forenoon to that portion of the Valley north of Louisville, and the afternon to that south of it.

Circumstances have, incidentally, placed the inhabitants of this region in possession of better opportunities to improve their breeds of domestic stock, than those of the people of almost any other section of the state. And yet how little, comparatively speaking, do they prize them! The stately Durhams—the choicest specimens from the yards of Whitaker and Wetherell, have been imported by mine host R., and the services of bulls, like the celebrated "North Star," (No. 2382 in the Herd Book—and the very best bull I think I ever saw,) were for years *gratuitously* given to the public,—yet it is but here and there in travelling through the Valley, that the eye detects in the broad square haunch—the capacious carcass—and the blood like head, an admixture of the Short Horn blood. There are exceptions to this, however, and to some of them I shall by and by allude. It is amusing to think of the opposition and resistance which the introduction of this breed of cattle, (and not in Butternuts alone,) has called out! An English gentleman of the name of Hollis, was the first who attempted the innovation in the country of which I am writing—but he received so little encouragement—was so assailed by ignorance and prejudice, that he gave up the contest, and abandoned breeding. I recollect a similar instance which occurred here, (Cortland,) when I was a mere lad. A man by the name of Lucas brought in a Short Horn bull, but so little was he esteemed, that his services would not pay for his keeping, and he was actually sold for the paltry sum of $30! *Now*, a cow that has got a drop of "Comet's" (he was a son of Wye Comet) blood in her veins, will sell for twenty-five per cent. more than another animal equally large, and in the eye of the ordinary buyer, of equally good general appearance. The deep milking, and the propensity to take on fat, of the Short Horns has vindicated itself. Whence arises the prejudice against this breed, on their first appearance? Ridiculous as it may seem, in nine cases out of ten, it is nothing more or less than *color!* I never heard any man object to the shape, the fattening or milking properties, of the genuine Durham. "If it were not for the *color*," said a farmer, (and in other respects a pretty good farmer too,) to me, the other day, when looking at a couple of heifers in my yard, —one of them a bright *red*, and pretty fair common heifer—the other a Durham which easily won the sweepstakes, and was offered the first premium as the best animal of any blood on the ground, at the Louisville Fair, last year,—"if it were not for the color, I should like the Durham best, but I had rather have the other—I can't bear a spotted cow!" I asked him *why* he liked *red* best, if there was any thing intrinsically more beautiful in this color? He "thought there was." "Well then," said I, "why not have your hat, coat, boots, and even your nose, blood red?" But according to my friend's idea, the *intrinsic* beauty of red is *intrinsic* only in cattle! In swine he fouud more intrinsic beauty in *white!* Now all this I take to be mere habit. Our New England ancestors came mostly from those parts of the mother country where the *red* (and really beautiful) North Devon was the favorite, and so our exclusive admiration for cattle of this color comes, very fairly I admit, by tradition and by inheritance. But had our ancestors been from Wales, the west Highlands of Scotland, or any other portion of Great Britain, where the *black* breeds take precedence, and where the popular estimation of the valuable properties of cattle are associated with this color, we should unquestionably be equally strenuous for *black*. Had they been from Durham, Yorkshire, Lincolnshire, &c. the pied, roan, grizzled, and every other possible modification and admixture of white and red, would have answered equally well. But I have run into a most notable digression! Now for our excursion.

An hour's drive up the creek, which wound its way, now fringed with low copses, now glancing in the sun's light, as it pursued its course through the smooth shorn meadows, brought us to Garretsville. Mr. B——ll of this place has a large and valuable flock of Saxon sheep, and I am gratified to learn that some of them have been found worthy of the first premium, at the late fair in Otsego. We here struck among the hills on the south side of the creek, until we reached the residence of Mr. G——y. This gentleman has commenced breeding the Short Horns. Young Mr. G——y gave an amusing instance of the reaction which is beginning to take place in their favor. "I bought," said he, "a calf of a few weeks old, for $80. My neighbors, including sundry relatives, declared I must be crazy, beyond all mistake. I kept 'Delight'* however until she was a year old, and then sold her for $200." "I tell you what," he continued, with vast *naivete*, "it did me good to shake my $200 in the faces of some of these wiseacres!" I was particularly struck with G——y's swine, the genuine Berkshires. They were introduced into this section by mine host R., and are gradually getting into the hands of the most intelligent farmers. So far as I can judge from a little personal experience, they surpass all other of the endless varieties of swine; but dreadful to relate! they too, go straight into the face and teeth of popular opinion in relation to color, being as all know, with the exception of an occasional spot, "black as sin." A litter of pigs which G——y was preparing for the fair, (and which I have since learned received the first premium,) lay basking in the sun, and natheless their color, would hardly have offended the optics of the most rigid Mussulman!

We descended the hill, and commenced our return. I will not take up time to speak of our several calls, during this and the afternoon's excursion, in which only objects, similar to those already described, were presented. Our ultimate destination in the afternoon was old Mr. A——k's. He possesses the only herd, which I am aware of, that can claim any degree of purity, of the once matchless New Leicesters†—sadly and deeply degenerated no doubt—as they *all* have, since the death of Bakewell—but still possessing no inconsiderable degree (more than I was prepared to expect) of their former lineaments. The long, polished, drooping horn, the head as delicately chiselled as that of a blood horse, and in some of them, the rich mellow skin, present some of the ancient characteristics, and remind one of the ancient glories of the race. Moddled—brought into existence, as it were, by the masterly genius of one man, they have passed away, since his death, like shadows. But Bakewell, had he lived, could not have saved them, except by a departure from the cardinal rule on which he built them up. The very secret of his success (breeding in and in) was the source and origin of inevitable decay. *Let this lesson not be thrown away on the breeders of the Short Horns!*

Mr. A——k is taking the sensible and judicious course, I think, by crossing his Long Horns with a Short Horn bull, and for this purpose he obtained from mine host R. the celebrated "North Star." It was to see this stately old monarch of herds, more than half, that my afternoon's excursion had been originally planned. He looked against the green back ground of a close cropped side hill, like a statue of pure white marble, embodying all the *ideal* perfections of the species,—and I am not poetising a whit, when I say, that a whole bevy of little calves were actually reposing in the *shade* of the giant! A mere lad, of our party, threw the lash of a small whip over his horns, and he followed him round with all the quietness of an old team horse. This docility is characteristic of the Durhams. I never knew, though doubtless there have been many such instances, a decidedly vicious one. The cross adopted by Mr. A——k, thus far, I think, promises extremely well. I noticed one of the produce, possessing an extraordinary combination of valuable and beautiful points.

Mr. A——k has also the New Leicester or Bakewell sheep, perhaps in as great perfection, though I am not qualified to judge, as any other breeder in the country. I saw at the Louisville Fair, last year, a buck from his flock, so old as to be nearly toothless, yet which sold readily to a gentleman from Albany for $50. They are noble looking sheep, and should they not become too numerous, will always give large profits to their breeders.

In our return we met with an adventure. We had scarcely descended the hill, before darkness came on, and a thunder storm, emphatically of the *first water*, set in. The thunder bowled away merrily among the Otsego hills as we sped on—and the jist of our adventure was, that we had some eight or ten miles to gallop through the pelting rain, and got as wet as——rats.

It would be unfair before turning my back upon Butternuts, especially after naming all others, not to speak of mine host R.'s sheep. The Merinos I will now pass over. His South Downs were purchased from Mr. Ellman, the South Down Bakewell, at an expense of $60 a head! They are splendid examples of what can be effected by skill and perseverance in stamping a peculiar form on a whole family of animals. They are said to fatten as easily, carrying as great weight in proportion to what they consume, as the bulkier Leicesters, and their mutton is of a much finer quality. Mr. R. thinks them the true farmer's sheep. On this point I may express my opinion at some future day. Be that as it may, they are a valuable and exceedingly beautiful race.

I made my egress from the valley of the Butternuts, much easier than my ingress, viz. by the turnpike to Mount Upton—passing on my way several pleasant seats, and some highly cultivated farms, all of which I will not trespass further on the time of your renders now to describe.

South-hill.

Cortlandville, Nov. 28th.

P. S. In my last, Rennersdorf, and Lohm, are made to read something else by a typographical error.

* This beautiful heifer, out of Daisy, (bred by Mr. Orne—see Herd Book,) by "Devonshire," (Herd Book, No. 966,) was exhibited against the heifer of mine previously alluded to, in the sweepstakes of full bloods at Louisville in 1836, and was adjudged second. She weighed 865 pounds, being about 18 months old—and was of the most beautiful symmetry.

† Often called "Shakspeares," from Mr. Fowler's celebrated bull of that name.

Improvements in Husbandry.

Mr. Tucker—I propose in this article to show the evidences that the science of agriculture is rapidly advancing in Western New York.

The first and most important indication of improvement is in the very rapid spread of the root culture. Five years ago there were few farmers among us that had ever seen a Ruta Baga, and the term Mangel Wurtzel, if spoken by a college learned man, would pass as a Greek or Latin phrase. Carrots were supposed to be useful only when the good house-wife boiled the pot for dinner. Now these hard words are in every one's mouth. Farmers, when they meet, have to tell what wonderful good things Ruta Bagas are, and how easily they are raised. Some farmers will tell of their crops of eight, ten, and even sixteen hundred bushels; and the complaint among

some of them is, that they have not stock enough to eat them.

The comparative merits of these three roots, are the subject of frequent discussion. In one point I believe they very soon agree, that ruta bagas fed to milch cows, spoil the taste of the butter. In another I think they will soon agree, that mangel wurtzels are fed out with less labor than ruta bagas, where they are cut by hand. Experience will soon settle another—that carrots are harvested with much more labor than either of the others. Some say that cattle fatten much faster on ruta bagas than on mangel wurtzel. Others, that carrots are preferable for feeding cows and horses. However we may differ in opinion as to the comparative merits of these roots, it is evident that their cultivation is a great public good, and no small indication of the rapid advance of agricultural science.

Another indication of improvement is, that there is less corn planted, and what is planted, has a far greater amount of labor bestowed upon it. Although, owing to the change in the seasons, we may not raise as much corn as formerly, yet every one must be sensible that with the labor we used to bestow upon this crop, very little corn could now be raised. The land is now very generally manured, and what is very remarkable, we see very few fields where the stalks are left standing or merely topped. Farmers have found that stalks are worth saving.

Barley is another item in husbandry of very recent introduction in this part of the state. Farmers who have the patience to endure the harvesting and threshing of this crop, and make a fair experiment of its value as a fallow crop, and for feeding farm stock, will not soon relinquish the culture of this grain.

Another indication of improvement is manifested in the appearance of our wheat fields. The land is better ploughed—better harrowed—the seed sown more evenly—old stumps, roots and stones are drawn off. Some farmers practice drawing the stone to one side of the field every time they plough, and soon have enough to make a half wall on one or two sides of it.

Our farm stock manifest no inconsiderable improvement. Sheep have multiplied greatly, and much improved in fleece and carcass. The growing of wool, although at present somewhat embarrassed by hard times, is, nevertheless, of great consequence, not only as an article of commerce, but for the benefit of sheep upon our farms. Sheep increase the value of our lands by the great care which they always take of manuring the driest, hardest knoll that can be found. Bushes and briars are subdued by them, and many weeds are of necessity kept off the farm for fear of injuring the wool. Breeds of cattle, horses and swine, are continually improving from the crosses with foreign breeds.

The improvements in farm buildings, in threshing machines, farming utensils, &c., all indicate that the intellect of the farmer does not lay dormant while his hands labor.

Not to go more into particulars, for the time would fail me to mention all the indications of improved husbandry, permit me to say, that I consider the interest taken in Agricultural Papers as one of the most decided marks of improvement in agriculture. Farmers are becoming more and more sensible that they do not know *all* that is to be learned of their profession. Started as the Genesee Farmer was, when agricultural reading was indeed a novelty, and continued as it has been through seven volumes, it must be a source of gratification to its enterprising proprietor, that most of the improvements in farming, which manifest themselves in every department of agriculture, have been recommended and enforced through the medium of this paper. Truly farmers, who are mindful of their own interest, and of the prosperity of this great branch of national wealth, should not be backward in giving the Genesee Farmer a liberal support.

Yours, &c., O. P. Q.

East Bloomfield, Dec. 1, 1837.

Sour and Sweet Apples.

Mr. Tucker—I am glad to see that you discountenance the idea of propagating apples combining these separate qualities by uniting buds in inoculation. In my opinion the whole doctrine of sweet and sour apples is a humbug. Knight and Van Mons have tried experiments in every possible way, and repeated them a multitude of times, without producing any such fruit. I have seen and tasted fruits of this description, but am of the opinion that the difference in taste is owing to a different development of the saccharine principle in different parts of the same fruit, or in other words, the apple was unequally ripened. All the apples of this variety that I have noticed were ribbed longitudinally; the sunken parts green and sour, and the elevated or developed ones full of ripened or saccharine juice. There was just about the difference in taste, that there is between an apple grown in the middle of a thick topped tree, and one of the same, from the outer and sunny side of the same tree. Apples possessing this peculiarity in ripening, may be propagated, as other varieties are, by grafting; but I have yet seen no evidence that such apples can be originated by the union of buds, or in any other way. The theory undoubtedly ranks with the exploded notion of producing stoneless cherries by picking out the pith from the graft, or coreless apples by grafting them top end downwards.

A Farmer.

Correspondence of the Boston Transcript.

LIFE OF AN ENGLISH NOBLEMAN.

Brecclesby Hall, in Lincolnshire, Aug. 1837.

Thus far up the eastern coast again. Here I propose to give you some illustrations of a nobleman's life. I am now staying, by invitation, a day or two, at one of the seats of the Earl of Yarborough. He is not here himself, and I have chosen this season because my especial object was the observing certain operations on the estate. Some of them I touched upon at "Holkam," and as there are several of your readers who are not enthusiastically interested in agriculture, I shall spare them the rest. Suffice it that his Lordship owns about 70,000 acres of land lying here nearly in one body, besides fragments detached. Much of this, which is very valuable, is redeemed from bog and swamp.

This coast, like Holland, opposite, is low, and like that, also, industry has made one of the finest countries in the world. See the result in the revenue. The earl is an extremely liberal landlord. His tenants flourish and get rich, from age to age, almost like their master. I know one of them who is worth his half a million of dollars. Yet they pay him I believe, not less than $260,000 per annum—the rent varying from $3 to $5 the acre, on an average of farms. The whole may be said to be under cultivation. What is called poor land, produces its four quarters and a sack, or 36 bushels of wheat; and what is called good, a quarter or two more.

The secret is partly in the earl's own character. He has a strong practical bias of mind, takes a minute, constant interest in the details of the whole estate, and has done a vast deal towards bringing it to its present condition. It was in the situation of President of an agricultural society that I first met him at the Dinner on the Isle of Wight, and I was then astonished at the knowledge he showed in his successive off hand speeches (which were lectures rather) on hedges, stocks of all sorts, and in fact every description of an English farmer's business which came up for notice.

Doubtless he could take one of his farms and manage it as well as any farmer in Worcester can *his*, and a great deal better than he could manage one here. As it is, not being much here, he reserves only a few thousand acres about the Hall, and a large part of this is kept emparked. One may ride 15 miles in the various winding roads upon this ground, always at the edge of the clean greensward, and shaded by lusty old trees, or, if you choose going ahead you may go thirty miles over his lordship's land in a right line—the farm-houses and cottages which you pass, mostly concealed among foliage, but wide, rich fields in all directions, brim full of the ripening grain, waving, as far as I can see, to the tops of the hedges. What a possession is all this for one man—what an item, I should say, in one man's possessions, an estate which, a few years since, as one of the family told me, when the rents, owing to great improvements, were advanced something above 20 per cent, *added*, by that mere hitch, from 50,000 to 60,000 per annum to his Lordship's pin money! But it is time to come nearer home.

The Mansion, in the library of which I now write, is a large high brick building, stuccoed, with two prong-like porches, at one end, one of which serves for the picture gallery, and the other for the servant's abodes. On the whole it is rather a shabby affair—owing, doubtless, to the Earl's favorite seat being on the Isle of Wight. This does well enough for a sort of farm-house, and to come and pass a hunting week or two in the course of the season. With such an understanding, the whole establishment is kept reduced, especially as the Earl has lately taken a fit of *retrenchment*, into his head. In fact I am told there are not above 30 *servants* at this time in the house, instead of the good old allowance of 70 or so, when the family, with their guests, used to be here.

What these 30 contrive to do is of course no affair of mine. I only know that "Usher" is a very civil fellow, who brings my tea, and that his business consists solely in the charge of the beer. He took me into his cellar last evening and showed me to begin with, 16 enormous butts of 420 gallons, and 32 of 210 each, of various ages. The wine is in like proportion: and there is a fat butler, and eke an under-butler, with a white apron on. Beyond this I have at odd walks made the acquaintance of the brewer's premises, whose establishment, though scarcely noticeable in the little village of buildings that surround the Hall, might be converted into a tolerable gentleman's mansion. It is only his place of business, however. His domestic establishment is somewhere else.

The head blacksmith has one of 40 or 50 acres, and a nice snuggery in the midst. That is a mile or two distant. The head gardener, close by, has also a very good house. He keeps about a dozen men constantly employed. The steward, or chief agent has a still better place—which looks very much like $3000 a year—with walks and grounds of its own. So have some other officers, including the huntsman. This man's ancestors have been on the estate in this business probably over 200 years, and his son is now being *educated* for the same. Besides him two kennel-keepers, and two whippers-in must be always on hand for the good reason that the dogs always are. About 40 couples of them occupy, in various forms, what could be called a very decent suit of rooms, 8 or 10 of them, in a long brick building by themselves.

In the stables about 40 horses are kept at present, including 20 or 30 prime hunters, every one of which has a room rather than a stable, and every two the attendance of a groom. Here, therefore, is work for 15 at least. After, all his Lordship does not hunt, though he once did. The establishment is kept up from habit, good feeling for his people, and for those of his family, and others, who may now and then come here for "sport." Of course, it is the same with the dogs and *their* five men. Yet the expense is enormous, for it is with dogs and hunters in England, as with pictures and a hundred other things, that if a man keeps at all, he must take pains with and pride in. Doubtless the huntsman has the genealogy of each of these puppies infinitely better preserved than his own. I know of one young nobleman's giving 200 guineas for a dog "of a good family," but I dare say it was an extraordinary case, for he was a *very dogged* amateur.

A Hint to the Working Classes.—If a man of 22 years of age, begin to save a dollar a week and put it to interest every year, he would have, at 31 years of age, six hundred and fifty dollars; at 41, one thousand six hundred and eighty; at 51, three thousaud six hundred and eighty; at 61, six thousand one hundred and fifty; and at 71, eleven thousand five hundred dollars. When we look at these sums, and when we think how much temptation and evil might be avoided in the very act of saving them, and how much good a man in humble circumstances might do for his family by these sums, we cannot help wondering that there are not more savers of $1 a week.

The Morals of Agriculture.

MR. EDITOR:—I wish that some of your correspondents, who have more leisure and more ability than myself, would take into consideration the subject on which I shall submit a few desultory remarks. If the morals of agriculture, deserve not such attention on account of their importance, the subject is at least worth the notice, and is properly within the province, of all authors of *addresses* to agricultural societies. Most of those gentlemen appear to be so much at a loss for subjects, that their addresses would not be badly designated by the title of "*Essays on things in general.*" I, therefore, reccommend this subject to any person intending to prepare an annual address, unless he really should have something else to lay before his society and the public.

The Hindoos believe that whoever plants a tree, digs a well, and begets a child, is sure of admission into heaven. As ridiculous as this part of their religious creed may appear, it shows the wisdom of their priests and rulers by whom it was instilled—who thus brought the strongest motives to induce every individual to increase the productiveness, population, and wealth of his country. When our ancestors emigrated from Europe, they wisely left behind them all their elfs, fairies, goblins, &c., and as it is impossible that we can long remain as we now are, free from popular superstitions, it would be a blessing to our posterity if we were to adopt, as one, Hindoo tenet, so modified as to suit our different situation. We have no want of growing trees, nor of fresh water: and all experience proves that children will always be furnished fully as fast as food necessary for their support. Population is always precisely proportioned to, or limited by, the means of subsistence, and in an agricultural country, must increase with the improvement of the soil, and decrease with its exhaustation. The farmer who makes his land capable of producing annually 500 bushels of grain more than before his improvements commenced, increases permantently the population of his country, by as many persons as his increased product will support. Another, who spends his life in reducing the fertility of his soil by the same amount, diminishes population as much: and that diminution is more effectual and permanent, than if he had confined his exertions to cutting twenty throats of every successive generation.

"To increase and multiply" is a divine command—and perhaps is the only command which all persons strive to their utmost ability to obey. But though the usual means may be the most agreeable, I beseech your readers to believe that they are far from the most effectual. It is true, that no harvest can be reaped unless seeds are first sown; but every child knows that it is not the greatest number of grains planted which ensures the heaviest crop of corn, but the means afforded for the support of the plants, by the degree of fertility in the soil. Just so with population. Only let bread, or means of obtaining bread, be increased in any country, and its population will soon be equal to the increased supply of food. On the contrary, if bad farming, or bad policy in the government, lessen the production of food, the inevitable consequence must be a diminished population. These positions (which every sound political economist will sustain) show what vast effects the labors of a single individual may have on the welfare of his country; and what beneficial effects might be produced, if it was believed (more especially by all law-makers,) that he who directly or indirectly lessens the productiveness of the earth, is guilty of a sin, which, if more pardonable than murder, is far more injurious to the country, and more destructive of its population, than would be many murders.

But seriously—this subject deserves to be reflected on by all; it will give additional gratification and encouragement to the improving farmer, and furnish an impressive lesson to him who is pursuing a contrary course. It would be visionary to expect that the public good, alone, would induce improvement of the land at the sacrifice of private interest. Nor would it be desirable. A farmer can in no way do as much good for his country, as by pursuing precisely that course which is most profitable to himself. But though many attempts to increase the fertility of the soil are ill-judged, yet there are means enough which are profitable; and there is no case in which the owner of a farm, can be most benefited by its exhaustion. The many, then, who waver between the two opposite cases, could scarcely remain uninfluenced by the *moral* consideration, that on the course of farming which shall be pursued by each individual, the comfort, nay, even the existence of thousands of human beings will depend.

For the purpose of illustrating, I will compare the course of two cultivators of my acquaintance, N——, inherited a farm and stock, capable of well supporting an industrious and economical man, but which, if left to the sole management of an overseer, and then treated according to the then usual practice, would not have paid the expense of cultivation for many years. Fortunately he knew what course would most promote his interest. For thirty years, he has not ceased striving to make 2 blades of grass where only one grew before, and he has met with the success which his exertions deserved. He rejected all improvments (improperly so called) which promised not to return some clear profit on the capital invested, but considered no improvement too laborious or expensive, from which he could, *with certainty*, derive the principal and interest of the first cost. He bought no land which he was not fully able to stock, or that would not yield more clear profit, on the purchase money, than he could have obtained from investing the sum in making additional improvements on the land already in his possession. At this time, by means of improvement of the soil and extended tillage, he makes crops six times greater than when he commenced. Though N——, has thus eminently promoted the public wealth, it was without caring for it: his views were exclusively directed to the advancement of his own private interest. He is obedient to the laws of his country and just and honest in all his dealings, because he knows that such is his best policy; but in no case does he allow his interest to yield to that of others, and perhaps never performed an act of real generosity in his life.

F——, is directly the reverse of N——, in disposition, character, and habits. Indolent, and having no fondness for farming, his business has been entirely conducted by his overseers; and according to the usual maxims which very naturally govern such gentry, they have exhausted his land as fast as they could clear it. Nothing but the immense fortune which their employer possessed, prevented him from living as most landholders in lower Virginia have done, on all of his actual increase, and part of his capital. But F——, is moderate in his desires, and therefore not of expensive habits; and notwithstanding his bad management, his income has allowed him to continue purchasing land, until he owns almost as much as a German principality. By these means, his annual crops are not materially lessened, though every field is in his turn destroyed, and deserted for a new one. Though he does not obtain two *per cent* from its capital, yet as still less suffices for his support, he considers his wealth increasing as rapidly as the number of his acres. According to the usual calculation of profit, injury to the land is not taken into consideration. It is evident however, that the mode of cultivation pursued by F——, is merely the whole fertility of one field, in the form of tabacco, wheat and corn, and applying it to another in the form of purchase money. What was said of the famous conquerer and destroyer, Attila "that the grass ceased to grow where his horse placed his foot," applies with more truth to my friend F——. Notwithstanding his many virtues, he has to the fullest extent which his means permitted been the destroyer of grass, of grain, and consequently, of men. Famine marches after him, and will not commit the less havoc because he himself is able to keep beyond her reach.

F——, is remarkable for his kindness and liberality to the poor. Besides frequent occasional acts of charity to others, he has long supported families, who would perish without such aid. I know how to estimate the motives, and according to them, to respect these two individuals. But their private virtues and vices, have nothing to do with my subject, except so far as the consequences of them affect the public good. F——, supports by his benevolence, twenty persons, and has destroyed the means of subsistence for 500, which in effect, is equal to starving, or preventing the existence of as many. N——, has given nothing in charity, but has given in the *wages of labor* more than F——'s wages and alms together; he has increased the production of the earth enough for food for 500 persons, and therefore he has increased population to that amount, though not at all by the Hindoo mode, as he has no children. It is very true that these people must work to obtain N——'s increased product; and so much the better. His improvements will not die with him, nor will the corporal powers of this laboring population, and their descendants or successors which will continue to earn and consume it. The country is not benefitted only by having its population increased by 500 persons; if they were all drones, they would rather be an evil. But the people who eat N——'s corn are field laborers, mechanics, manufacturers, sailors, and merchants, all of whom are continually increasing the national wealth by their industry, as well as its strength, by their numbers. F——'s charity has served not only to support several families, but has doubled their number, by the births, which have taken place since they partook of his bounty. After his death they must still be supported by others or starve. They are not able to add any thing by their labor to the public stock, and though the children will hereafter be able, their present situation is the worst of all schools to acquire habits of industry. Were all our land holders like N——, the wealth and population of the state would quickly be doubled. Were all like F——, with all his virtues, wealth and population would rapidly diminish, until the country became a desert. Thousands are pursuing the ruinous course of the latter; very few cultivate so as alike to increase the national resources and their own.

My opinion on this subject, taught me to expect but little increase in the population of Virginia, and not to be disappointed in the report of the last census, which shows a gain of but ten per cent, in the last ten years. But for the recently awakened spirit of agricultural improvement (the impulse to which, we owe principally to the author of Arator,) I think that the tide-water district would have suffered a considerable diminution. As much vacant land as this district contains, there is but little uncultivated, (which until enriched) will yield any clear profit. Therefore, eastern Virginia, in its present state, is *fully populated*, and no increase can be expected *except from the improvements of the soil, and the consequent increased means of subsistence.* We export provisions, it is true; this may at first seem to indicate a surplus of the means for subsistence, and a fund for additional population. But such a conclusion would be incorrect. Our surplus food is exchanged for clothing and other commodities, which in fact, or from custom, are as necessary as sufficient food. Our only consolation is, that our excess of population emigrates to the west; instead of starving, as in most populated countries.—*American Farmer.*

DISCONTINUANCE OF SUNDAY TRAVELING IN ENGLAND.—We learn from an English paper, that at a recent meeting of coach proprietors from all parts of England, held in London, it was very generally determined, to give up, as far as possible, the travelling of public coaches on the Sabbath. This measure was resolved upon, principally on the ground that it would be an actual *saving to the proprietors*, as there would be very nearly the same number of passengers as at present, though spread over six days instead of seven, while many of the expenses would be diminished one seventh, and it would be a great relief to the horses. Several of the proprietors were also influenced in coming to this decision, by religious considerations.

All the coaches between Leeds and London, (except the mails) have therefore discontinued starting from either end of their journey on Sunday; and it is the same with the Manchester, York, West of England coaches, and many others. The practice promises to become general throughout the country, and will tend materially to advance the cause of morality and religion, and will give the advantage of the Sabbath to thousands of coachmen, guards, stable keepers, &c. Stage-coaches never travel on a Sunday in Scotland.—*Boston Merc. Journal.*

The collection at the Zoological Gardens in London, has lately been enlarged by the birth of a dromedary—the first instance known in Europe.

From the Zanesville Gazette.

Agricultural Experiments.

Messrs. Parker & Bennett:—If you think the following experiment deserving the attention of my brother farmers, it is at your service.

Last spring, having a piece of ground which had been in grass for several years, I had it broken up as deep as possible with a strong oxteam and plough adapted to the purpose. I then chequered it about 3½ by three feet and covered the crosses with long manure plentifully, and on this dropped the potatoes, taking for each hill a whole potatoe and cutting it in two. The potatoes were then covered about an inch and a half with earth, and the cultivator was afterwards run three times through the ground but no fresh earth reached the growing crop. From this strip of ground 12 rods long by 21 feet in width measuring from the adjoining corn across to the fence. I measured 100 bushels of potatoes, and a quantity, from 5 to 10 was put away without measurement. The quantity of land being about one tenth of an acre, the yield was more than at the rate of 1000 bushels per acre, which at 25 cents, the price potatoes have brought this fall in Zanesville, would be $250.

The kind of potatoes used was what are by some called the "long reds." It is proper I should say that this experiment was made in accordance with hints derived from the Genesee Farmer; and I have also this fall tested to my satisfaction the practicability of fattening hogs on apples.

About the first of September I put up six hogs, one of which was an old sow which had just suckled a litter of pigs, and was in very thin condition. These I fed for three or four days on sweet apples, but at the end of that time I found they would not eat; I then threw them a quantity of very sour apples which they devoured rapidly, I afterwards fed them freely on a mixture of sweet and sour apples, giving them for drink the ordinary slop of the kitchen and when that was not sufficient I gave them spring water; I never saw hogs thrive more rapidly. The sow I fed six weeks, the others only four—when I sold them to one of the Zanesvile butchers, for market use. They were then excellent pork.

It is my opinion that two acres of orchard will, taking the seasons on average, make as much pork as six or eight acres cultivated in corn.

Nov. 20th, 1837. A Muskingum Farmer.

Raising of Calves.

The best method of raising calves we think is to do so by hand. If taken from the cow as soon as dropped, there will be no difficulty in teaching it to eat. Loblolly made of half a pint of corn meal and a pint of new milk given to it about thrice a day will be sufficient to keep it. It is the easiest thing imaginable to teach the calf to suck up its food; by simply pressing down its head into the pan containing the mixture with one hand, and inserting the fore finger of the other into its mouth, it will instinctively suck up its beverage. If it be desirable to husband your milk, you may begin to decrease the quantity which you add to your loblolly when the calf is about three weeks old, putting in less milk each day until the calf imperceptibly forgets its taste altogether. When the calf is six weeks old you may turn him out in a grass lot; but if you desire to push its growth, continue its loblolly twice a day; by doing so you will increase its size fully one third.—*Farmer and Gardener.*

On the fattening of Hogs.

This is another communication from Mr. L'Hommedieu, the object of which is to recommend to farmers, to soak the corn destined for their hogs, until it has become soured, instead of feeding it to them dry. Much of hard corn, fed to fattening hogs, is not digested, and a considerable portion is discharged with the dung, which does them no good. Mr. L. estimates that one tenth of the corn fed to hogs may be saved by soaking. Estimating the number of hogs annually fattened, to equal the population of the state, leaving out the cities, or 530,000, and that each hog consumed two bushels of corn, the saving by soaking the feed would *then* have been 50,000; *now*, upon the same calculation, it would amount to about $200,000. Mr. L thinks soaking as good as grinding, with the advantage of saving the toll, or one-tenth. If the corn is made to undergo fermentation before it is fed, the reasoning may be correct; but the modern belief is, that a saving of nearly fifty per cent is effected by *grinding* and *cooking* corn before it is fed, that the globules may be ruptured and the *dextrine*, or nutritive properties of the grain may be fully developed. Accurate experiments, made by the Rev. Mr. Colman, have shown that pigs fed with cooked Indial meal, gain twice as fast as when fed with dry corn; but on the supposition that twenty-five per cent would be saved, exclusive of the toll, the saving, upon the estimate of consumption laid down by Mr. L'Hommedieu, would amount to half a million of dollars annually, to the state of New-York, by grinding and cooking the corn feed for hogs.—*Cult.*

Embankments.—Mr. Johnstone in his Treatise on Draining, &c., gives the following instance of the value of agricultural improvements under the head of "Reclaiming Land from the Sea by Embankments:"—"The tracts of salt marshy ground which have been reclaimed in Scotland are not very numerous; but it is hoped the profit which these have afforded, may tend to induce further exertions in this branch of improvement. Perhaps there is no place in which more valuable acquisitions have been made in this manner than in the Island of Islay, under the direction of its intelligent proprietor, Mr. Campbell, of Shawfield. At the head of an arm of the sea called Loch Gruinart, an embankment has been executed, by which four hundred acres of land, which formerly composed an useless salt marsh, have been brought under the plough In making this embankment it was found that a considerable stream which discharged itself into the head of the Loch, impeded the operation of the flood-gates; and as the only effectual method of removing this serious inconvenience, Mr. Campbell had recourse to the expensive and arduous expedient of totally reversing the course of the stream, by with-drawing it from its old channel, and leading it through the opposite side of the country into Lochindal. The whole of this embankment was executed in one summer. The total expense was about 600*l*. The ground which was reclaimed was let at an additional rent of 255*l*, so that estimating this at thirty years purchase, the immediate gain by the embankment was 7,050*l* sterling. Mr. Campbell has finished a similar embankment against the sea at the head of Lochindaal."

New Varieties of the Potato.—When the rot first made its appearance among the potatoes, we ventured to suggest, that gentlemen who had spare time on their hands, might occupy themselves to a worse purpose than in producing new varieties of the plant, from seed. We learn that our Mayor, Thomas Kennedy, Esq., has, for a long time, been engaged in the culture of such varieties; and has, at length, succeeded in producing four—all of them of a dark color, and peculiarly well adapted for the table. Mr. Kennedy has a great many other varieties in progress. He finds that it requires five years to perfect them, from the seed; and that degeneracy commences in the tenth year.—*Derry Journal.*

Secure Cellers from Frost.—Scarcely a winter passes away without some lossess from cellers not being sufficiently secured against the cold of winter. If not already done, this business should now be attended to. Some persons suppose that the ensuing winter will be a mild one; no farmer should calculate on that, but be prepared for the worst; and it is frequently the case that our mild winters are very trying to cellers, for in such seasons there is usually some weather that is extremely cold even in our mildest winters. Never mind a little pains, better do too much than fail of securing the crops for which you have labored hard. Let them not be lost for want of a days work.—*Yankee Farmer.*

Small Fruit Trees should be secured by stakes, especially those that are very low and limber, else they will be likely to be broken down by snows.—Sometimes the snow is three or four feet deep and becomes wet and then frozen in a solid mass, so that when it settles in the spring it will break down tender trees unless they are well secured. In setting stakes by trees it is necessary to set them a little distance from the but of the tree lest the roots be broken or disturbed in the operation. If the tree be very slim it should be tied to the stake as high up as the deepest snows usually come, and it may be well to tie such trees to stakes in several places.

A few minutes' labor will save a tree that otherwise might be destroyed, which in a few years may afford an income of several dollars yearly.—*Ib.*

Our Staple.—The quantity of wheat and flour arrived at the Hudson river, *via* the Erie canal, during the fourth week in November, was as follows;

	Brls. Flour.	Bush. Wheat.
	76,694	38,706
For corresp'g period in 1836	43,951	26,881
Increase	35,743	11,825

or equal to 35,108 barrels of flour.

In addition to the above, 9072 barrels of flour, and 2964 bushels of wheat arrived at Schenectady, most of which came over the rail-road to the Hudson, making the total quantity which arrived at tide water in 8 days, equal to 94,100 barrels of flour. The quantity of flour and wheat which has arrived at tide water, via the canal and rail-road, within the fifteen days ending the 1st inst., has been nearly equal to *one hundred & ninety thousand barrels!—Argus.*

The importation of wheat from Europe has commenced again. One or two packets last week brought grain, and it is said that large orders have recently gone out, founded on a scarcity in the United States, or at least high prices for a long period.

It is somewhat singular that flour should maintain its present high price, when it is understood that most of it from the interior has to be paid for by the dealers here with cash, or what is nearly equivalent, at 30 days sight. The country banks will not advance funds to the speculators with the same freedom as formerly, and consequently the holders forward it to New-York, and draw for the proceeds at 30 days sight. Much of it must be thrown into the market for sale, and we would suppose that such a course would bring down the price. But that is not the case. It still remains firm, and foreign wheat may now be imported at a profit,—*N. Y. Eve. Post.*

Spring Wheat.

A SUPPLY of the celebrated Italian Spring Wheat just received from Rome.

Also, the Siberian Beardless Spring Wheat, much cultivated and highly recommended in the northern part of this state. For sale by REYNOLDS & BATEHAM.
dec 2 Rochester Seed Store.

The Rohan Potatoe.

THE subscriber has a quantity of Rohan Potatoe for sale. They were raised by him from seed obtained from France, and he believes them to be the most productive potatoe known, and a superior variety for the table. Letters (post paid) addressed to the subscriber at Cattskill, N. Y., will be promptly attended to, and the potatoes reserved for those who order till the spring, if they cannot be sent before.
Cattskill, Nov. 15, 1837 -f4:* JOHN A. THOMPSON.

Seeds for 1838.

JUST arrived at the Rochester Seed Store, a large importation of English Field and Garden Seeds, of the growth of 1837; shipped from London this fall expressly to our order, and comprising a full assortment of the choicest kinds, such as

Cabbage,	Ruta Baga,	Rye Grass,
Cauliflower,	Mangel Wurtzel,	White Dutch
Brocoli,	Sugar Beet,	Clover,
Radish,	Lucern,	&c., &c.
Turnep,	Trefoil,	

These Seeds are from one of the best establishments in Europe, and the perfect satisfaction which they have hitherto given, is sufficient guarantee of their character.

Dealers and others supplied at wholesale on very favorable terms. REYNOLDS & BATEHAM.
nov18 fit

Fruit Trees For Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.
apr 15-tf

N. B. Cash will be paid for a few thousand two years old Apple Trees

MARINE SHELLS, a fine collection, for sale at No. 12, Exchange-st,
oct.17. Wm. ALLING,

From the Buffalo Com. Advertiser.

Aurore Boreale.

Evening before last, November 14th, a renewed display of the *Aurore Boreale* was visible, from this city, which though not so brilliant as that phenomenon has often been, within a few years past, was nevertheless distinguished by several peculiarities which I have not before observed.

The day had been pleasant, with only flying clouds to partially obscure the sun's rays; but these gradually increased as night approached. At 5h. 15m. P. M., a friend called my attention to the appearance of the heavens; and we both immediately repaired to the roof of a lofty building, from whence we could command an unobstructed view, from the Zenith to the horizon, upon every side. At this time there were many small detached masses of clouds, in various parts of the heavens; but due N., and 50° both E. and W. of this point, the sky was wholly unobscured. This whole region, when first viewed by us was of its usual appearance; but still further E. and also W. the clear sky, as well as the broken clouds, exhibited the deep ruddy hue sometimes witnessed in the west, at sunset. This soon faded, leaving barely a perceptible tinge; and instantly, when nearly all color had disappeared elsewhere, a space some 15° in diameter, immediately W. of Cassiopeia and Andromedia, and N. of Pegasus was lighted up with red of a deeper hue than any we had yet seen. This was entirely disconnected, on every side, from any auroral light or appearance, whatever; and from its centre pencils of white radiated to the periphery, on every side.

This continued some five minutes, when the white lines disappearing, the whole space in question assumed an uniform red color, which was almost instantly thereafter extended, in an arch of the same width, through our zenith and down to the horizon, about 60° W. of N. On the E. this light did not extend itself. During all this time the clear space in the N. which has been mentioned, retained its usual color and appearance. When this arch faded, streamers of the usual form, and of a deep red color, with pencils of white intermingled began, for the first time, to rise in the N., and on either side of this point for about 60°; but the most brilliant were E. of N. All these rose, faded, and were renewed again and again, with great rapidity; but they did not exhibit any of that tremulous motion sometimes denominated *Merry Dancers;* nor did the numerous streamers at any time have the appearance of convergence at their extremities, as is not unfrequent. When this display began to fade in the N. and N. W. the streamers to the E. of N. retained their full splendor, and moved slowly, and with an uniform motion eastward, & did not fade until near the east point, where all disappeared at a given vertical line. At 5h. 43m. the usual haziness in the N. began first to appear and rapidly thickened for some minutes.

At 5h. 47m. the clouds had become more dense and dark (though still in detached masses,) particularly throughout that portion of the heavens which had been occupied by the red arch above mentioned, and these isolated clouds now assumed an appearance at once novel and striking. Those W. of our zenith, and lying within the track of the crimson arch already described, suddenly exhibited the most vivid red along their entire *southern borders*, while the like clouds E. of our zenith, and following the same track and prolonging it quite down to the Eastern horizon, assumed the same vivid color upon their *northern borders;* while no other portion of these clouds exhibited the least appearance of auroral light in any of their parts. S. of this line there was, at no time, any auroral light, whatever; and at the moment in question there was very little in any other parts of the heavens, save on the borders of these clouds. At 5h. 51m. the red edging of these clouds began to fade, and immediately a a wide space in the N. E. that was still free from clouds, was most brilliantly lighted up. The color was the same deep red, but it did not extend down to the horizon; and this had scarcely endured four minutes when the whole region N. of of our zenith, to within about 8° of the horizon was again reddened and glowing; while beyond these limits, either N. or S. no vestige of the *aurore* was visible. At 5h. 58m. the moon appeared above the horizon; and as it was only two days past the full, its beams soon surpassed in brightness, those of the *aurore*, and farther observation of these last became impossible.

On ascending to the roof, as stated, my friend, to whom I have mentioned I was indebted for the opportunity of witnessing this occurrence, carried with him a compass, which we believe was in very perfect order. This he carefully observed, on the roof, during our stay there, as I did, occasionally myself; but neither of us was enabled to detect the slightest disturbance of the needle, although placed in the full light of a lamp to favor the observation. We left the roof, on the appearance of the moon; and the same compass, with another, believed to be equally good, was carefully observed for some time in a closed room, but with identically the same result; no disturbance, whatever, was detected in either needle.

One meteor, only, and that of the kind and appearance usually denominated "falling stars," was noticed during the observation. This was first visible a little N. of the star *Algenib*, in the constellation Perseus, and fell obliquely towards the E. point of the horizon. The wind, the whole time, was from the W., but very light; and during most the time of observation, buildings and other terrestrial objects were tinged with reflected red.

Buffalo, Nov. 16. R. W. Haskins.

Messrs. Editors:—Since the attempt to establish the periodicity of the showers of meteors, or "falling stars," the subject has attracted much attention, both in this country and in Europe; and whatever may eventually be the fate of that theory, the sum of human knowledge will doubtless be augmented by the investigations it has and still will provoke. Observations first indicated a probable periodic return of these meteors in November of each year; and subsequent search of records shows that several showers of them, of much extent, have taken place in August, also, as well as in some other months. Two articles in the last number of Silliman's Journal of Science, the one by Mr. George C. Schaeffer, of New York, and the other by Mr. Edward C. Herrick, of New Haven, have for their object to show the fact of such showers in August, and to fix attention upon such events as probably periodic.

In the proceedings of the Academy of Sciences, at Paris, sessions of 14th and 28th of August last, I find many important facts, upon this subject, communicated by M. Arago; and thinking their publicity, through the press of this country, may be acceptable to the scientific, at least, I send you, below, a translation of the whole, for publication.

R. W. Haskins.

Falling Stars.

(Session of the French Academy of Sciences, August 14th, 1837.)

M. Arago announced to the Academy, that on the night from the 10th to the 11th of August he witnessed an extraordinary display of falling stars. His oldest son, who is not an astronomer, and one of his friends, counted 107 of these meteors in the space of one hour, (beginning at a quarter past eleven o'clock,) while they were walking in the garden of the observatory. From 57 m. past midnight to 3 h. 26 m., the commencement of morning twilight, two astronomical pupils, Messrs. Bouvard and Laugier saw 184 of these luminous bodies. The greatest number appeared to be direct towards the constellation Taurus, as they should have been, according to the direction of translation of the earth.

At the session on the 28th of August, M. Arago communicated extracts from several letters, tending to prove—

1st. That this phenomenon, in August, is not confined to the year 1837:

2d. That the observation of it was not limited to Paris:

3d. That in this month, as in November, the meteors are observed, in greater numbers than usual, during several consecutive nights.

M. de la Tremblais, of the department of the Indre, writes from Chateauroux that, on the night of the 9th of August, being some leagues from the town, he observed a similar phenomenon.

"From 10 h. until 10 h. 35 m.," says he, "I saw about thirty of these stars; and most certainly I saw not all which appeared, for I was upon the road, in an open carriage, proceeding in the direction from N. E. to S. W., so that I could only observe that part of the heavens comprised between Cassiopeia and the Eagle; and even from this my attention was much diverted by the necessity of guiding my vehicle. The following are the results of my observations:

"All these stars appared in the direction of the constellation Pegasus; or, perhaps, a little more towards Cassiopeia. They all pursued a line from this last constellation, towards Antinous; some few above, but the most below; and all parallel to this line. They traversed this space of the heavens with very great, and apparently the same velocity. Only two, of the whole number, left after them a luminous train, of one or two seconds in duration.

The following night, the 10th, I went out to observe, at about 10 h., and in the course of one quarter of an honr I saw five or six falling stars—all issuing from the same part of the heavens, and having the same direction as those of the previous night. I was then obliged to suspend my observations, and I was not afterwards enabled to renew them.

"On the night of the 11th, at the same hour, I saw only two, in the space of half an hour. A third very brilliant, appeared near Arcturus, and fell almost perpendicularly to the horizon."

M. Wolferdin, being at Bourbonne-les Bains, in 1836, recorded in his journal, for the night between the 8th and 9th of August, the following observations:

"The 8th of August, 1836, from 9h. 30m. to 12h. 30m. the sky being perfectly serene, I again observed a great number of falling stars; being alone, I was not able to make critical remarks: I observed principally towards the N. and counted, in one hour or rather in two half hours, for my observations were not continuous, from 156 to 158 of these meteors. I at no time saw less than two per minute.

"The course of them all was descending, deviating more or less from a vertical line. The greatest number moved in the directions from W. to E., and from W. S. W. to E. N. E.

"I observed one of them which moved almost horizontally, or under an inclination of only a few degrees, leaving after it a very long train, or succession of bright spots, exceedingly vivid, and of a whitish rather than red colour: its duration was from 6 to 7 seconds. There was no wind."

M. Jules Graziani saw at Rome, in the two consecutive years, 1826 and 1827, a number altogether unusual of falling stars, in the nights of the 14th and of the 15th of August. In 1826, he counted more than fifty per hour of them, in the two nights indicated. He observed the phenomenon only from 10 o'clock until midnight. The greatest part of the meteors appeared to be directed from the N. E. to the S. W.

Farmer's School Books.

THE Farmer's School Book, edited by J. O. Taylor, published at the Albany School Book Depository. First Lessons on Political Economy, for the use of Schools, by John McVicker, published at the Albany School Book Depository.

The above valuable books are for sale at the Albany prices by HOYT & PORTER.

Rochester, Nov. 11, 1837.–f3t

Monroe Horticultural Garden & Nurseries, Greece, Monroe Co., N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

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April 1, 1837. ASA ROWE.